

# AB-4838/AC-4837

## 8K8K Multi-Purpose Camera



**AB-4838**

8K8K Camera Head Unit



**AC-4837**

Camera Control Unit



With a fisheye lens attached

### < Features >

- ✓ 8192 x 8192 pixels image sensor equipped with a professional grade video camera
- ✓ Suitable for VR applications and Dome Theater
- ✓ For shooting videos of 8K8K 60p / 8K4K 120p / 8K2K 240p
- ✓ L-Mount type lens mount

## ✓ “Immersive Experience” with the 8K8K Camera



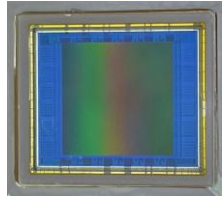
Fisheye lens attached  
and a gimbal



Tokyo Tower (Looking straight down)  
shot by the AB-4838 with a fisheye lens



# 1. Merits of a Large Square Sensor



8192 pixels

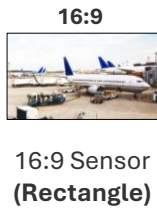
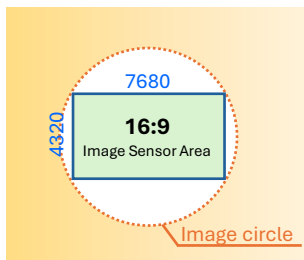
8192 pixels

### AB-4838 Image Sensor

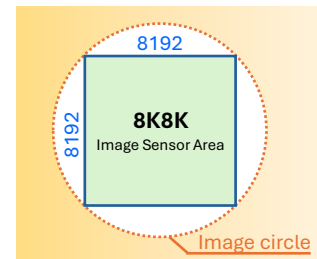
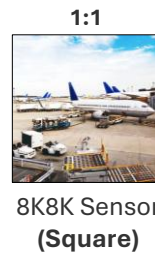
- 8192 x 8192 pixels (66M pixels)
- 20.5mm x 20.5mm (Square)

## (1) Comparison against a 16:9 sensor

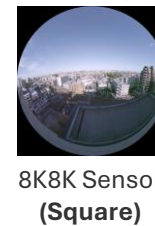
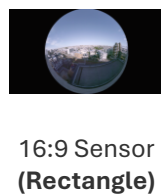
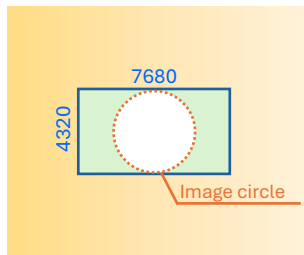
with a Normal lens



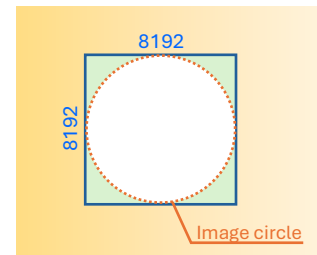
✓ **Wide vertically**



With a Fisheye lens

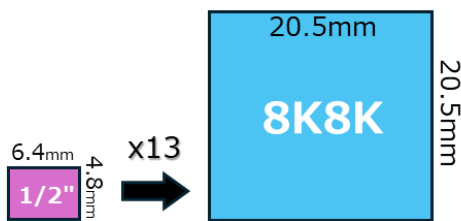


✓ **Wider image circle (most efficient)**



## (2) Comparison against a consumer 360 camera

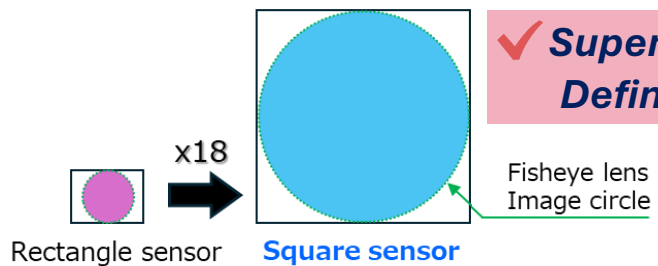
Sensor size



Consumer 360 camera

**AB-4838**

Effective image circle (using a fisheye lens)



Rectangle sensor

**Square sensor**

✓ **Super High Definition**

- ✓ A professional grade video camera with 8192 x 8192 pixels and a large image sensor
- ✓ The square sensor has the biggest area of image circle when a fisheye lens is attached.
- ✓ Compared to a consumer 360 camera with a 1/2" sensor, the area is 13 times bigger, and when a fisheye lens is attached, the effective image circle is 18 times bigger.





## 2. Light Weight with High Mobility



**AB-4838**

- Lightweight (600g)
- Can be Attached to a gimbal



✓ **"Immersive Feeling"**

✓ **"Mobility"**

*Smoothly change the camera position and angle*

### Use Cases



**Tokyo Tower**  
Looking straight down

*Shot by AB-4838*

The camera crew was holding the camera 30cm over a glass section of the floor and shoot the ground while they were walking. When you watch this video while wearing VR goggles, you may experience a fear of heights.



**Basketball**  
Behind the backboard

When shooting the players from behind the backboard at a downward angle, or from court-side at an upward angle, you can see the players up close in the immersive space. (This image was made in Photoshop)



### 3. Main Applications (of immersive videos)

#### (1) “Sports Live production” and “VR content production”

##### Dome LED Display

“Stadium alternative with the same immersion”



##### VR Goggles

“Experience more excitement at home”



Nowadays there are two main ways to enjoy the immersive video.

One is using a large LED display. These are common many places to watch live sports around the world, where you can enjoy a glass of beer while watching the game on various large LED screens. Venues that use dome-style displays are also increasing. By using the 8K8K camera to film content for these locales, owners can give their guests an unprecedented immersive experience.

For smaller scale, by using VR goggles, anyone can enjoy live sports, movies, tv shows, and more with the excitement as being at a stadium or theater at home.

#### (2) Our line-up to support new revenue opportunities

With these advances in technology, experiences that could only be had by those actually at the stadium or theater can be enjoyed in other ways, like viewing dome displays or by wearing VR goggles. This is a new opportunity to increase revenue by second or third use of the content.

We here at ASTRODESIGN have the solutions to help people achieve these goals. Capturing unseen video expression with the 8K8K camera, recoding uncompressed video, and distributing the 8K live video in the highest quality. We are very happy to support everyone in finding new opportunities.

##### ✓ Capturing Unseen Video Expression



**AB-4838/AC-4837**  
8K8K Multi-purpose camera

##### ✓ Recording in Uncompressed Video



**AS-8940**  
8K/4K Uncompressed Media Server

##### ✓ Distributing with the Best Quality



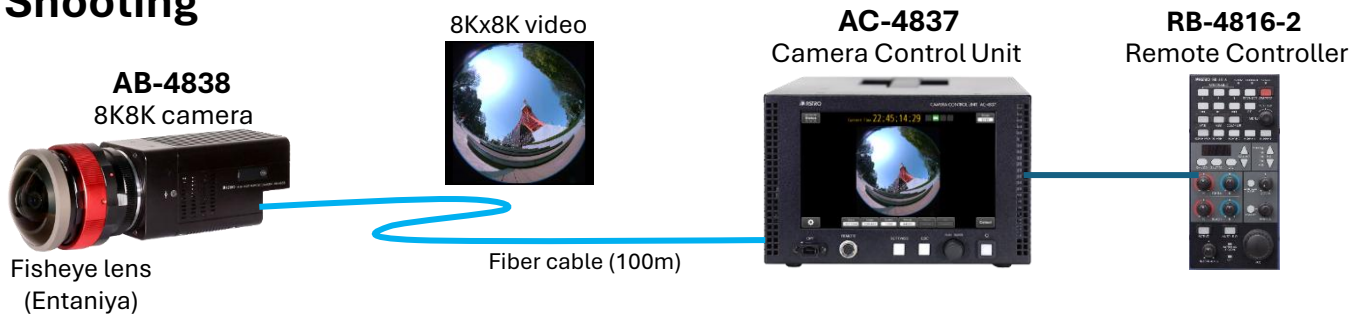
**CD-5550**  
JPEG XS IP Gateway



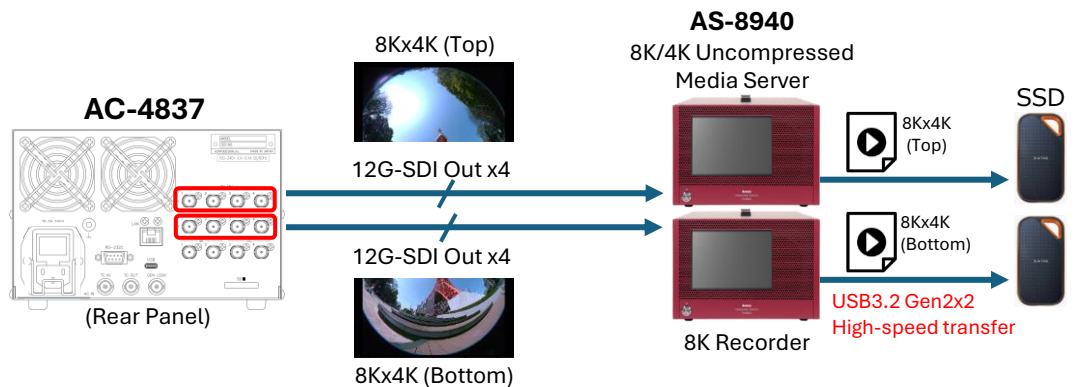


# 4. 8K8K Production Workflow

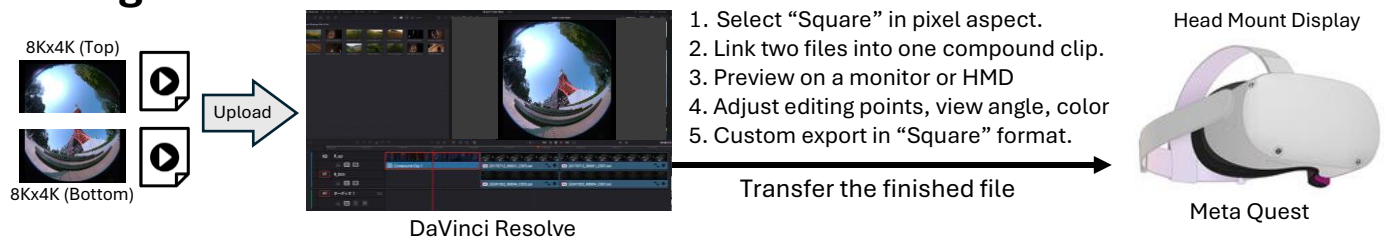
## (1) Shooting



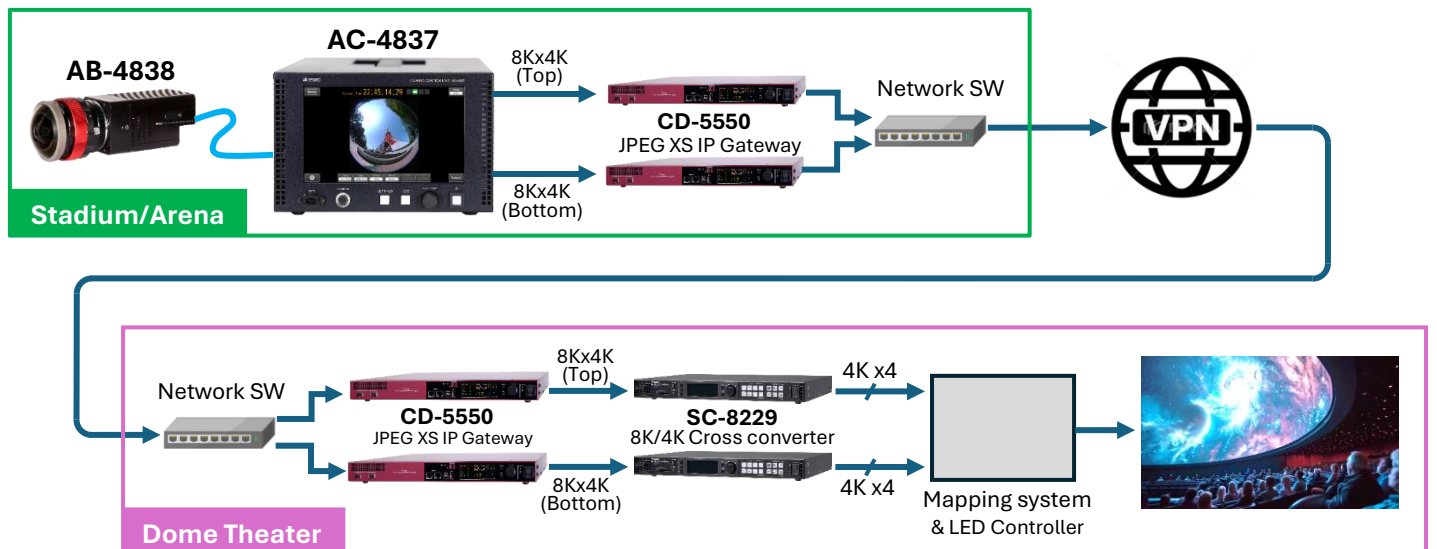
## (2) Recording



## (3) Editing



## (4) Live Transmission





# 5. More Information About AB-4838/AC-4837

## (1) High Frame Rate Capture (8K4K/120p, 8K2K/240p)

AB-4838 supports 8K8K/60p, 8K4K/120p and 8K2K/240p.

### Case-1 Horse Racecourse

- Shoots in **panorama** to capture fast subjects
- Captures the full group, from the first horse to the last.
- **240fps** is perfect for making judgements



### Case-2 Athletic Field

- Capture the full field in one shot
- **240fps** is perfect for making judgements



About AB-4838



**CLICK!**

For more information about AB-4838 :

<https://www.astrodesign.co.jp/english/product/ab-4838>



Inquiries



**CLICK!**

For inquiries about AB-4838 :

<https://www.astrodesign.co.jp/english/form/mailform.cgi?type=default>

